CLAIMS

What is claimed is:

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1. An expanded perlite product having a controlled particle size distribution;

wherein the ratio of the standard deviation of particle size distribution to the median particle size is less than 0.63; and

wherein the median particle size is less than 50 microns.

- 2. The expanded perlite product of claim 1, wherein the ratio of the standard deviation of particle size distribution to the median particle size is less than 0.60.
- 3. The expanded perlite product of 2, wherein the ratio of the standard deviation of particle size distribution to the median particle size is less than 0.58.
- 4. The expanded perlite product of claim 3, wherein the ratio of the standard deviation of particle size distribution to the median particle size is less than 0.55.
- 5. The expanded perlite product of claim 1, wherein the product has a wet density less than 50 pounds per cubic foot.
- 6. The expanded perlite product of claim 5, wherein the product has a wet density less than 40 pounds per cubic foot.
- 7. The expanded perlite product of claim 6, wherein the product has a wet density less than 35 pounds per cubic foot.
- 8. The expanded perlite product of claim 7, wherein said product further has a wet density less than 30 pounds per cubic foot.

The expanded perlite product of claim 8, wherein the product has a 9. wet density less than 25 pounds per cubic foot. The expanded perlite product of claim 9, wherein the product has a 10. wet density less than 20 pounds per cubic foot. The expanded perlite product of claim 1, wherein the product has a 11. floater content of less than 10 percent by volume. The expanded perlite product of claim 11, wherein the product has a 12. floater content of less than 5 percent by volume. The expanded perlite product of claim 12, wherein the product has a 13. floater content of less than 2.5 percent by volume. The expanded perlite product of claim 13, wherein the product has a 14. floater content of less than 2 percent by volume. The expanded perlite product of claim 1, wherein the product has a 15. blue light brightness greater than 80. The expanded perlite product of claim 15, wherein the product has a 16. blue light brightness greater than 82. The expanded perlite product of claim 16, wherein the product has a 17. blue light brightness greater than 83. The expanded perlite product of claim 17, wherein the product has a 18. blue light brightness greater than 85.

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19. Hegman finen	The expanded perlite product of claim 1, wherein the product has a ess greater than 1.0.
20. Hegman finen	The expanded perlite product of claim 19, wherein the product has a less greater than 2.0.
21. Hegman finer	The expanded perlite product of claim 20, wherein the product has a ness greater than 3.0.
22. Hegman finer	The expanded perlite product of claim 21, wherein the product has a ness greater than 4.0.
23. Hegman fine	The expanded perlite product of claim 22, wherein the product has a ness greater than 5.0.
24. Hegman fine	The expanded perlite product of claim 23, wherein the product has a eness greater than 6.0.
	A process for the preparation of an expanded perlite product of claim d comprising using air classification equipment to effect both milling and tion, thereby to obtain the expanded perlite product.
26.	A process for the preparation of an expanded perlite product of claim od comprising obtaining the product by centrifugal sieving.
27. media, or c	A filter, insulating material, filler, horticultural media, hydroponic hemical carrier comprising the expanded perlite product of claim 1.
28. filtering a s	A method of separating components from a solution, comprising olution comprising the components through a filter comprising the

expanded perlite product of claim 1.